

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 11-20 are pending for examination in this application. Claims 1-10 were previously canceled without prejudice or disclaimer.

The outstanding Office Action includes a rejection of Claims 11-20 under 35 U.S.C. §103(a) as being unpatentable over Neary et al. (U.S. Patent No. 3,882,721 Neary) in view of Catagrel et al. (EPO 0100715, Catagrel).

Before considering the outstanding rejections, it is believed that a brief summary of the present invention would again be helpful. In this regard, the present invention is directed to a weather vane for measuring orientation of the wind that has a rotary base and a vane sensitive to that wind that is fixed by a joint to that base. A heater having a first dimension extending in one direction and a second dimension extending in second direction is inserted into the vane that is hollow through an insertion orifice that is situated in the base of the vane. This orifice situated in the base of the vane and the hollow interior cavity both have a shape having a large enough size in at least the first and second directions to permit the heater to be directly inserted into the hollow interior cavity of the vane through the base of the vane without the heater completely filling the hollow interior cavity.

Turning to the rejection of Claims 11-20 under 35 U.S.C. §103(a) as being unpatentable over Neary in view of Catagrel, the basis for asserting that there is any reasonable motivation to modify either reference by the teachings of the other is not clear.

In this respect, the vane of Neary is not hollow because it has an "embedded" heater wire 55 (col. 3, lines 39-41). Moreover, this heater wire 55 cannot be simply inserted through the base of the vane as the wire has to undergo two 180° changes in direction as clearly illustrated as to heater wire 55 shown inside the vane in FIG. 2. Also, the teaching of embedding at col. 3, lines 39-41 is specific to the heater wire being "cast in place" with the

heater wire 55 of Neary being grounded to the vane at 56. As was noted in the response filed August 20, 2003, it is well established that “embed” means to “fix firmly in a surrounding mass or to enclose snugly or firmly, to make an integral part of.” See again the page 447 definition of “embed” from the Americal Heritage Dictionary attached to that response. As further noted in this August 20 response, “hollow” can only be reasonably interpreted to mean that there is a cavity, gap or space present. This was also documented by the page 617 definition of “hollow” attached to that response.

These teachings of the thin single strand of heater wire to be embedded into the vane with no excess space inside the vane are critical to the vane of Neary because the purpose of Neary is to have a “quite thin” vane (col. 2, line 30) that is also light weight so as to have a high torque capacity without high inertia (see col. 4, lines 9-11 as well as col. 1, lines 26-29).

On the other hand, Catagrel clearly is not concerned with reducing the weight of the vane by using a light weight single wire as a heater to provide a high torque capacity without high inertia given the bulkiness of the heaters suggested by Catagrel. Moreover the use of the vane backside for heater insertion is clearly the antithesis of the Neary requirement for a “quite thin” vane as the backside hole has to be wide enough to accommodate heater insertion. Accordingly, while Catagrel can be said to teach insertion of a bulky heating element through large size holes in the rear surface of a vane that is relatively thick to accommodate the heater dimensions and a hollow space inside the vane to accommodate he large heater, the artisan would have had no reasonable basis to select the Catagrel reference for combination with Neary as the vane of Neary would not then operate as intended by Neary in terms of being a thin vane of light weight that has high torque capacity without high inertia. The PTO reviewing court requires the PTO to establish why the artisan would have some reasonable basis to select the references for combination. See In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) and In re Lee, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

Thus, the rejection is clearly misplaced because there has been no motivation established as to any reason why the artisan would have even selected these disparate references for combination, much less a reasonable basis to depart from the reference teachings and to enlarge the rotary base and torque arm 17 of Neary to permit forming a suitable passage there through large enough for the bulky Catagrel heater to be passed to an interior space in the vane forming a hollow heater compartment therein as further required by Catagrel.

Moreover, the rejection is clearly misplaced because the proposed combination would require an extensive modification to Neary that, if performed, would change the desired operating principal of Neary as to providing a light weight and thin vane having a high torque capacity without high inertia. Any proposed modification that would change the basic operating principle of a reference is not an obvious one. See In re Ratti, 123 USPQ 349, 352 (CCPA 1959).

Furthermore, modifying the vane of Neary as taught by Catagrel would not result in the claimed subject matter, even if this modification were to be done as taught by Catagrel. In this regard, the modification following the actual Catagrel teachings requires the use of the large rear surface of the vane for heater insertion. It is well established that reference teachings must be taken in the context presented in the entire reference. See In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

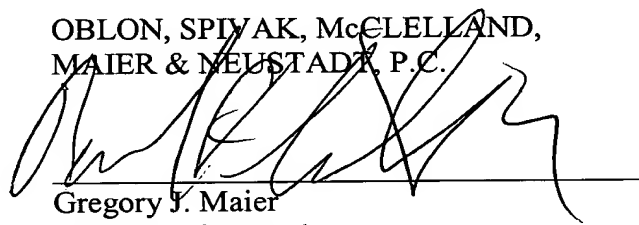
To the extent that the outstanding Action appears to suggest that either Neary or Catagrel suggest the heater insertion through the rotary base of Neary, this suggestion is without merit. The wire hole of Neary is clearly not taught to be used to insert the heating wire into any inner hollow of Neary as fully discussed above as to this twice curved and embedded wire. Also, to whatever extent that Catagrel teaches heater insertion through a complementary shaped hole, this complementary shaped hole is on the wide rear face of the

apparent vane of FIGS. 6-9. Further, it is clear that the rotary base hole of Neary and/or rotary base size of both Neary and Catagrel (FIGS. 6-9) are far too small and far too separated from the vane by the streamlined support (17 in Neary and 11 Catagrel) to provide a passage into the vane of the size and shape required by the Catagrel suggested heaters. Once again, the required showing of reasonable motivation to modify Neary to reach the claimed subject matter from only the teachings and suggestions of Catagrel and Neary is lacking and the rejection is clearly improper and should be withdrawn.

As it is believed that no other issues remain outstanding in this application, it is further believed that this application is, accordingly, in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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